



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

644.4123

Job Sheet 175561



April 16 (Ship May 9th)

Part No: 644.4123

Job Qty: 10 ea

Part Name: EC145 Fwd Crosstube Bushing



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 4/6/18

Job Tracking No:

Due Date: 4/16/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG 644.4100 Rev F2 IPP REV:A NEW ISSUE 16-12-07 JLM VERIFIED BY:DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	10 Ea		4/12/18	0.00	0.00	Start Up Machining-1		JB 18-05-02
100	Lathe Conv	10 pcs		4/16/18	0.00	33.33	Lathe Conv-1		JB 18-05-02
110	QC	10 pcs		4/16/18	0.00	0.00	QC2 Machining-1		JB 18-05-02
120	QC	10 pcs		4/16/18	0.00	0.00	QC8 Machining-1		mark 18/05/02
130	Outsource	10 pcs		4/16/18			ATG001-VC		CT105-1 18/05/02
140	Packaging	10 pcs		4/16/18	0.00	0.00	Packaging2		18/05/02
150	QC	10 pcs		4/16/18	0.00	0.00	QC6		38
160	Packaging	10 pcs		4/16/18	0.00	0.00	Packaging3-1	CCK 135	90 MAY 11 2018
170	QC21-SA	10 Ea		4/16/18	0.00	0.00	QC21		mark 18/05/14

Part Op 100 - 1-TURN AS PER DWG DWG REV: ****CHECK NOTE 7***** 2- deburr and break all sharp

Descriptions: edges

130 - 1-ISSUE P/O TO ATG: 1803981 2-Anodize Black -MPP-172 Section 2.1 -Hard Anodize IAW Mil-A-8625

Type 3 Class 2 3-Certification of Conformity is required

160 - ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M6061T6R0.625	6061-T6 Round Bar .625"	3 ft (.3 ea)	90-Start up Operation	5046348

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M6061T6R0.625	3	44	0

Part Specifications

Specifications could not be found.

BQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition																					
								Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐																			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

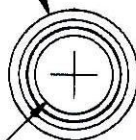
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

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APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

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$\phi .333$ THRU



$\phi .466^{+.000}_{-.003}$

.500

$3.570^{+.000}_{-.003}$

.031 TYP

45.0°

644.4123

ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY D. PAROTTI		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL J. JOSEPH 08-27-05		PIVOT STEP ASSY	
CONTRACT NO.		REV.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ± .003 ANGLES ± .5°		REV. B	07M26
SCALE: NONE		644.4100	
SHEET 15 OF 16		F	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

Q: Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Re-iss ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Skid-tube</td><td style="width: 10%;">☐</td> <td style="width: 15%;">Cross tube</td><td style="width: 10%;">☐</td> <td style="width: 15%;">Water Jet</td><td style="width: 10%;">☐</td> <td style="width: 15%;">Engineering</td><td style="width: 10%;">☐</td> </tr> <tr> <td>Machining</td><td>☐</td> <td>Small Fab</td><td>☐</td> <td>Prod. Eng. Coord.</td><td>☐</td> <td>Quality</td><td>☐</td> </tr> <tr> <td>Thermoforming</td><td>☐</td> <td>Finishing</td><td>☐</td> <td>Rec/Store/Packaging</td><td>☐</td> <td>Other</td><td>☐</td> </tr> <tr> <td>Large Fab</td><td>☐</td> <td>Composite</td><td>☐</td> <td>Supplier</td><td>☐</td> <td></td><td></td> </tr> </table>								Skid-tube	☐	Cross tube	☐	Water Jet	☐	Engineering	☐	Machining	☐	Small Fab	☐	Prod. Eng. Coord.	☐	Quality	☐	Thermoforming	☐	Finishing	☐	Rec/Store/Packaging	☐	Other	☐	Large Fab	☐	Composite	☐	Supplier	☐																																																																		
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DART AEROSPACE Container No: S067617 Part: 644.4123 Job No: 175561 Serial No/Batch: S067617 Revision: F2 Inspector: Date: 05/02/18 Dart Aerospace Ltd. 1270 Aberdeen Street Hamilton, ON K8A 1K7 TEL: 1 813 832-5200 Email: sales@dartaero.com www.dartaerospace.com										Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																																																																	
Root Cause <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Environment</td><td style="width: 10%;">☐</td> <td style="width: 15%;">No Re-verification</td><td style="width: 10%;">☐</td> <td style="width: 15%;">Bending</td><td style="width: 10%;">☐</td> <td style="width: 15%;">Positioned Wrong</td><td style="width: 10%;">☐</td> </tr> <tr> <td>Design</td><td>☐</td> <td>Operator</td><td>☐</td> <td>Centre Not Concentric</td><td>☐</td> <td>Outside Dimensions</td><td>☐</td> </tr> <tr> <td>Doc/Data</td><td>☐</td> <td>Offset/Setup</td><td>☐</td> <td>Cracks</td><td>☐</td> <td>Over/Under tolerance</td><td>☐</td> </tr> <tr> <td>Equip/Tooling</td><td>☐</td> <td>Supplier</td><td>☐</td> <td>Crimp/Kink/Ripple/Wave</td><td>☐</td> <td>Part Incorrect</td><td>☐</td> </tr> <tr> <td>Handling/Pre</td><td>☐</td> <td>Training</td><td>☐</td> <td>Cuffs</td><td>☐</td> <td>Part Lost/Missing</td><td>☐</td> </tr> <tr> <td>Material</td><td>☐</td> <td>Use for Testing</td><td>☐</td> <td>Crushing</td><td>☐</td> <td>Part Moved</td><td>☐</td> </tr> <tr> <td>Internal Transport</td><td>☐</td> <td>Poor Information</td><td>☐</td> <td>Heat Treat</td><td>☐</td> <td>Drawing</td><td>☐</td> </tr> <tr> <td>Tribal Knowledge</td><td>☐</td> <td>Rushing</td><td>☐</td> <td>Wave/Twist in Tube</td><td>☐</td> <td>Finish</td><td>☐</td> </tr> <tr> <td>LOA</td><td>☐</td> <td>Product Improvement</td><td>☐</td> <td>Marks/Chatter</td><td>☐</td> <td>Misread</td><td>☐</td> </tr> <tr> <td>Substation</td><td>☐</td> <td>Process Improvement</td><td>☐</td> <td></td><td>☐</td> <td>Turning Sequence</td><td>☐</td> </tr> <tr> <td>Past Expiry Date</td><td>☐</td> <td>Manufacturing Process</td><td>☐</td> <td></td><td>☐</td> <td></td><td></td> </tr> <tr> <td>Misidentified</td><td>☐</td> <td>Past Due</td><td>☐</td> <td></td><td>☐</td> <td></td><td></td> </tr> </table>												Environment	☐	No Re-verification	☐	Bending	☐	Positioned Wrong	☐	Design	☐	Operator	☐	Centre Not Concentric	☐	Outside Dimensions	☐	Doc/Data	☐	Offset/Setup	☐	Cracks	☐	Over/Under tolerance	☐	Equip/Tooling	☐	Supplier	☐	Crimp/Kink/Ripple/Wave	☐	Part Incorrect	☐	Handling/Pre	☐	Training	☐	Cuffs	☐	Part Lost/Missing	☐	Material	☐	Use for Testing	☐	Crushing	☐	Part Moved	☐	Internal Transport	☐	Poor Information	☐	Heat Treat	☐	Drawing	☐	Tribal Knowledge	☐	Rushing	☐	Wave/Twist in Tube	☐	Finish	☐	LOA	☐	Product Improvement	☐	Marks/Chatter	☐	Misread	☐	Substation	☐	Process Improvement	☐		☐	Turning Sequence	☐	Past Expiry Date	☐	Manufacturing Process	☐		☐			Misidentified	☐	Past Due	☐		☐		
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OTHER : _____																																																																																																											



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039781**

Supplier: ATG001-VC
A.T.G. Industries Inc
731 INDUSTRIELLE ROAD
ROCKLAND
ON
K4K 1T2 Canada
Phone: 613-446-4544
Fax: 613-446-4556

Attention: Lalande, Marc-Andre

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO039781

PO Date: 5/2/18

Due Date: 5/4/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	175554	644.4120	Spacer, Crosstube 1-ISSUE P/O TO ATG: _____ 2-Anodize Black -MPP-172 Section 2.1 -Hard Anodize IAW Mil-A-8625 Type 3 Class 2 3-Certification of Conformity is required	Firmed	5/4/18	10 pcs	0 pcs 10x	10 pcs	\$8.38/pcs AT 18/05/18	\$83.80
2	175560	644.4122	EC145 Fwd Crosstube Bushings 1-ISSUE P/O TO ATG: _____ 2-Anodize Black -MPP-172 Section 2.1 -Hard Anodize IAW Mil-A-8625 Type 3 Class 2 3-Certification of Conformity is required	Firmed	5/4/18	10 pcs	0 pcs 10x	10 pcs	\$8.38/pcs AT 18/05/18	\$83.80
3	175561	644.4123	EC145 Fwd Crosstube Bushing 1-ISSUE P/O TO ATG: _____ 2-Anodize Black -MPP-172 Section 2.1 -Hard Anodize IAW Mil-A-8625 Type 3 Class 2 3-Certification of Conformity is required	Firmed	5/4/18	10 pcs	0 pcs 10x	10 pcs	\$8.38/pcs AT 18/05/18	\$83.80



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 915097

Date: 07-May-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chrisoula Tsimiklis
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		OUR TRUCK	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
10 ea	Part: 644.4120 Spacer, Crosstube Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Job: 22983 PO: PO039781 Line: 1	Rev: F	
10 ea	Part: 644.4122 EC145 Fwd Crosstube Bushings Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Job: 22984 PO: PO039781 Line: 2	Rev: F	
10 ea	Part: 644.4123 Bushings Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 5mils). Job: 22985 PO: PO039781 Line: 3	Rev: F	
CERTIFICATE OF CONFORMANCE A.T.G. Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>07/05/2018</u> Certified Signature: <u>[Signature]</u> Receiver Signature: _____ A.T.G. Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt. Made in Canada.			

DATE
38
9-86